The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). Device for the production of tuneable picosecond light pulses in the visible spectral range, having a laser system (LS) that emits femtosecond light pulses in the infrared spectral range, and having an optical frequency converter (FC) for converting the wavelengths of the light pulses into the visible spectral range, ~~characterized in that~~ wherein the wavelength of the light pulses emitted by the laser system (LS) can be tuned, whereby the conversion of the wavelength of the light pulses by means of the frequency converter takes place in such a manner that the wavelength of the light pulses emitted by the laser system (LS) can be tuned, whereby ~~and that~~ an optical stretcher (OS) is provided, by means of which the pulse duration of the frequency-converted light pulses can be increased to at least 1 ps.

Claim 2 (currently amended). Device according to claim 1, ~~characterized in that~~ wherein the frequency converter (FC) comprises one or more frequency doubler(s).

Claim 3 (currently amended). Device according to claim 1, ~~characterized by~~ comprising at least one optical frequency filter that is switched either ahead of or after the frequency converter (FC).

Claim 4 (currently amended). Device according to claim 1, ~~characterized in that~~ wherein the wavelength of the light pulses emitted by the laser system (LS) can be tuned at least in the range between 1 µm and 2 µm, preferably between 800 nm and 2 µm.

Claim 5 (currently amended). Device according to claim 1, ~~characterized in that~~ wherein the optical stretcher (OS) is formed by at least one dispersive optical element that is switched after the frequency converter (FC).

Claim 6 (currently amended). Device according to claim 1, ~~characterized in that~~ wherein the laser system has a non-linear optical fiber (3) for the production of the tuneable light pulses, by means of which the optical spectrum of femtosecond light pulses can be modified using solitonic effects, whereby an optical compressor (2) is switched after the non-linear optical fiber (3).

Claim 7 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the light pulses that are coupled into the non-linear optical fiber (3) have a pulse energy of at least one nanojoule.

Claim 8 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the optical compressor (2) is configured to be adjustable, in such a manner that the time/frequency progression of the light pulses coupled into the non-linear optical fiber (3) can be modified.

Claim 9 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the non-linear optical fiber (3) maintains polarity and/or shifts dispersion.

Claim 10 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the non-linear optical fiber (3) has a core diameter of less than five micrometers.

Claim 11 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the non-linear optical fiber (3) is configured as a microstructured photonic fiber.

Claim 12 (currently amended). Device according to claim 6, ~~characterized in that~~ wherein the length of the non-linear optical fiber (3) is less than one meter.

Claim 13 (currently amended). Device according to claim 6, ~~characterized by~~ comprising an additional optical compressor (6) that is switched after the non-linear optical fiber (3).

Claim 14 (currently amended). Use of a device according to ~~one of~~ claim~~s~~ 1 ~~to 13~~ for microscopy, con-focal microscopy, fluorescence spectroscopy, or the automated search for active substances.